

REMARKS

The Notice of Appeal was filed on March 30, 2004 and the present amendment is offered to advance the application without the need for prosecuting the appeal. In this amendment, apparatus claims 11-12 have been canceled and method claim 1 has been further amended by limiting the method to cutting types of steel. The previously included aluminum has been removed from the claims. It is believed that this amendment does not present any new issues requiring further consideration and/or search because it cancels claims and limits the remaining independent claim to a previously considered species (i.e., cutting steel).

Claims 1-14 were rejected as unpatentable over FAERBER 6,060,687 in view of WO 98/14302. Reconsideration and withdrawal of the rejection are respectfully requested.

Amended claim 1 defines a method for cutting a workpiece made of stainless steel, coated steel, non-alloy steel or alloy steel in which a laser beam and an assist gas are used. In the method, an optical means is used to focus the laser beam at several focal points that are separate from one another, and a gas mixture containing hydrogen and at least one inert gas is used as the assist gas for the laser beam when cutting the workpiece made of stainless steel, coated steel, non-alloy steel or alloy steel.

FAERBER teaches a laser cutting process that is applicable to metals that maintain their resistance to environmental effects, such as aluminum and its alloys (column 2,

lines 2-5). Aluminum oxide forms a protective coating on aluminum that prevents further oxidation, while oxidation of iron forms iron oxide that is permeable to air and water, meaning the metal continues to corrode after the rust has formed. The goal of FAERBER is to improve the quality of the cut and to this end uses a mixture of hydrogen and an inert gas (column 1, lines 47-54).

The Official Action points to column 1, lines 26-29 for the suggestion to use the process with steel. However, this refers to the use of oxygen, not an assist gas that is a mixture of hydrogen and inert gas. The Official Action also notes that the claims are for cutting a "metal." However, claims are interpreted in light of what is disclosed in the specification. There is no suggestion in the specification to use the process to cut steel, and as noted above, the specification indicates that the process is intended for cutting metals that maintain their resistance to environmental effects, which does not include steel.

WO '302 discloses that a laser beam with multiple focal points is useable for cutting steel or stainless steel when the assist gas is a pure gas. The pure gas is oxygen when cutting ordinary steel and is an inert gas when cutting stainless steel.

In other words, WO '302 teaches a process for cutting steel with a multi-focal point laser beam and a pure assist gas, while FAERBER teaches a process for cutting a metal that maintains its resistance to environmental effects with a single

focal point laser beam and a mixture of hydrogen and an inert gas as the assist gas.

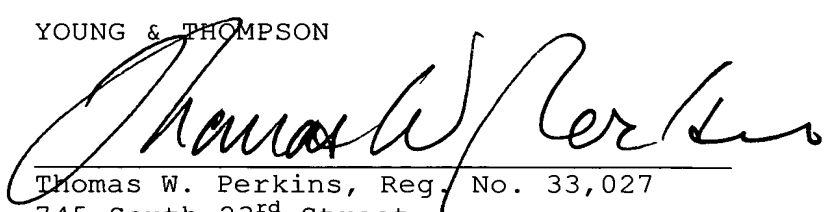
In view of the exclusion of aluminum from the claims, and the indication in FAERBER that the method described therein is suited to metals that maintain their resistance to environmental effects (i.e., aluminum, not steel), it is not believed that one of skill in the art would be motivated from the combination of FAERBER and WO '302 to use the multi-focal point laser beam process with an assist gas that is a mixture of hydrogen and an inert gas to cut steel.

In view of the present amendment and the foregoing remarks, it is believed that the present application has been placed in condition for allowance. Reconsideration and allowance are respectfully requested.

The Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 25-0120 for any additional fees required under 37 C.F.R. §1.16 or under 37 C.F.R. §1.17.

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